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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,538	09/23/2003	Jean-Pierre Saladin	14XZ124316	2096
23413	7590	06/17/2005	EXAMINER	
CANTOR COLBURN, LLP 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002			SUCHECKI, KRISTYNA	
			ART UNIT	PAPER NUMBER
			2882	

DATE MAILED: 06/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/668,538

Applicant(s)

SALADIN ET AL.

Examiner

Krystyna Suchecki

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-41 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 09/23/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: numeral 108 in Figure 3 (mentioned in Paragraph 25 of Specification). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the means for support and its interaction with the mobile carriage and means for compression of an object against a tray must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

3. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure

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must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claims 1, 40 and 41 are objected to because of the following informalities: the claims contain the limitation "smart device" in quotation marks. While applicant can be his own lexicographer, the use of quotation marks in the claims is inappropriate to set off a phrase. The term should be defined in the specification to clearly set forth a specific meaning, and should not use a statements such as "and the like" or "for example" so as to include alternative definitions. The phrase "smart device" should then be used in the claims without quotation marks. The phrase is further objected to since the structural limitations conveyed are not clear. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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6. Claims 1, 40 and 41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term “smart device” in claims 1, 40 and 41 is used by the claim to mean a device with “tracks and relays,” while the accepted meaning is “a programmable microprocessor based device.” The term is indefinite because the specification does not clearly redefine the term.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nields (US 6,459,925) in view of Zimmermann (DE 101 08 297 A1).

10. Regarding Claims 1-6, 15-21 and 36-41, Figure 3 of Nields teaches a radiological imaging apparatus (Column 4, lines 37-47) comprising: means for supporting (20) an object tray (32); means for compression of the object against the tray (34); the means for compression carried by a mobile carriage (engaged with both 34 and 20) along the means for support; the

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means for compression comprising means for cooperating with means for reading of the mobile carriage (Column 7, lines 30-56); the means for reading cooperating with a smart device (position sensors, Column 7, line 37) of the apparatus for providing an image of the object.

Nields' apparatus comprises multiple, different means for compression that can be selectively used and removed from the device based upon different object sizes to be evaluated (Column 7, lines 30-56).

11. Nields fails to teach the means for compression comprising means for the identification of the means for compression cooperating with means for reading of the mobile carriage.

12. Zimmermann teaches means for identifying one of several motile cartridges and cartridge holders in a radiological system. Multiple cartridges can be interchanged based upon the size of the object to be imaged (Paragraphs 2-4). The cartridges each have multiple optical, electrical or mechanical means to identify the cartridge, including grooves (tracks) to mechanically indicate whether the correct cartridge has been entered (Paragraphs 17-18), and may include a smart device, and a relay to indicate whether it is of the appropriate size to interact with the object (Paragraphs 11-21). The identifying means prevents confusion in the use of an inappropriately sized cartridge and so prevents mistakes (Paragraphs 11 and 3). The system will not operate if the relay indicates that an inappropriate cartridge has been used, and so the cooperation of the correct cartridge and cartridge holder activates a relay to cause the system to operate (Paragraphs 18-21). A digital identification is also possible (Paragraphs 17-18).

13. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use identifying means as taught by Zimmermann in the system of Nields since the multiple compression means of Nields could be mistaken or confused. The grooves

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(tracks) and smart device means of Nields would cooperate along the mobile carriage means so that, when a different paddle (34) is engaged in the slot along support (20), the position sensor means could identify whether a mistake has been made by the confused entry of the wrong sized compression means (Zimmerman, Paragraphs 20-21). The compression means would then have a relay actuator that would allow the system to operate only upon entry of the correct size compression plate. The compression plate would thereby activate a relay to operate the imaging system. Since the compression pad would engage a slot shown in Figure 3 of Nields that is shown parallel to the support (20) along the mobile carriage, the means for identification of the pad and its positioning would extend along a direction of mobility of the pad with respect to the carriage. Since, as above, one relay would activate another, a plurality of relays would be present to interact with the smart device. Digital identification would also be possible to prevent mistakes (Zimmermann, Paragraphs 17-19).

14. Regarding Claims 24-30 and 33, Nields teaches the mobile carriage comprises means for reading the position of the compression pad, and the compression pad comprises means to indicate its positioning (Column 7, line 30- Column 8, line 8).

15. Regarding claims 7-14, Zimmermann teaches that each cartridge has multiple markings in order to identify the cartridge, and that the markings can cause an electrical identification, including logic for resistance measuring and chip reading (Paragraphs 17-20).

16. Zimmerman fails to teach means for reading comprising, in series, a circuit for adapting voltage levels compatible with a logic circuit and a parallel-to-serial converter circuit.

Zimmermann also fails to teach each output of a matching circuit as connected to an input of the

parallel-to-serial converter circuit. Zimmermann also fails to teach an input of a matching circuit as connected to an output of a relay or an input of a matching circuit as connected to the output of a relay.

17. However, when multiple electrically identifiable markings are used, it is known to use a channel to identify such marking. In the case of multiple resistive markings in a logic circuit, each marking would have its own channel and corresponding voltage. It is known to impedance match resistive circuits in order to make data travel faster, so each resistive channel would have a matching circuit. Since data is collected across multiple parallel channels for each mark, more circuitry is needed along the data collection area. Since circuitry and relays is expensive, a reduction in at least relays would be beneficial, as so serialization of the data would eliminate a number of relays between the data collection circuitry and a remote computer processor. In order to activate, or check, the resistive circuit, a signal must be sent to the circuit. When the signal traverses a relay from a signal source to the resistive circuit, fluctuations may occur in the signal, and therefor a matching circuit is needed to correct for fluctuations in the signal and thereby avoid erroneously high or low resistive feedback signals.

18. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use means for reading comprising, in series, a circuit for adapting voltage levels compatible with a logic circuit and a parallel-to-serial converter circuit. This adaptation would allow the correct voltage to be fed to a resistive logic circuit so as to avoid erroneously high or low signals. The signals could then be serialized for transport across a relay to a computer, the serialization causing a reduction in the number of channels needed to convey information. Each output of a matching circuit could also be connected to an input of the

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parallel-to-serial converter circuit to again avoid erroneous signals. An input of a matching circuit could be connected to the output of a relay, so as to avoid an erroneous input to the resistive logic circuit. The matching circuits would not only avoid error, but would increase the speed of transmission across the several channels, circuits and relays.

19. Claims 22, 23, 31 and 32 are rejected as above for claims 15 and 24.

Conclusion

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Application to Zimmermann (US 2004/0064027) is cited for its relation to Zimmermann, as used above. Application to Andreasson (US 2003/0198315) and Brundin (US 4,019,059) cited in Andreasson, are of interest for teaching sensing circuits in mammography paddle systems.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krystyna Suchecki whose telephone number is (571) 272-2495. The examiner can normally be reached on M-F, 9-5.

22. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Glick can be reached on (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

23. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WP
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Craig E Church

Craig E. Church
Primary Examiner